

Appl. No. 10/773,559
Amtd. Dated May 29, 2007
Reply to Office Action of January 29, 2007
Attorney Docket No. 1217-040223

REMARKS

The Office Action of January 29, 2007 has been reviewed and the Examiner's comments carefully considered. The present Amendment amends claims 16, 17, 26 and 45 in accordance with the specification and drawings as originally filed. No new matter has been added. Claims 1-15, 32-38 and 51 were withdrawn from further consideration in view of an earlier restriction requirement. Withdrawn claims 4, 8, 32 and 51 were amended to correct minor informalities. The Applicants reserve the right to file a divisional application directed to the non-elected claims. Accordingly, claims 16-31 and 39-50 were examined on their merit in this application, and claims 16 and 17 are in independent form.

Interview of May 22, 2007

The Applicants would like to thank Examiner Le for the courtesies extended to the Applicants' representative during the telephonic interview of May 22, 2007. No agreements were reached during the interview.

Claim Objections

Claims 26 and 45 stand objected to for informalities. The Applicants believe that the above amendments to claims 26 and 45 overcome the Examiner's informality objections. Reconsideration and withdrawal of these objections are respectfully requested.

Nonstatutory Double Patenting Rejection

The Examiner has provisionally rejected claims 16-31 and 39-50 for double patenting over co-pending Application No. 10/774,045. The Examiner provided that the basis for this rejection is found in claims 5, 6, 8 and 10 of Application No. 10/774,045, and page 2, lines 1-12 of the specification of Application No. 10/774,045. After this Office Action was mailed, co-pending Application No. 10/774,045 has issued as United States Patent No. 7,183,033 on February 27, 2007.

Applicants submit herewith Terminal Disclaimer Form PTO/SB/26 to obviate the double patenting rejection over United States Patent No. 7,183,033. Accordingly, withdrawal of this rejection is respectfully requested.

35 U.S.C. §102/§103 Rejections

The Examiner provided several prior art rejections of claims 16-31 and 39-50. Specifically, the Examiner has rejected claims 16-31 and 39-50 under 35 U.S.C. §102(b) as

being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over each of the following references: United States Patent No. 5,466,552 to Sato et al. (which was cited in the Information Disclosure Statement (IDS) submitted August 24, 2004); United States Patent No. 6,372,400 to Yoshizaki et al. (which was cited in the Supplemental IDS submitted September 12, 2006); United States Patent No. 5,268,249 to Saha et al. cited by the Examiner in the January 29, 2007 Office Action; Japanese Patent Publication No. JP 03-168377 to Kenji et al. (which was cited in the IDS submitted August 24, 2004); Japanese Patent Publication No. JP 09-236947 to Masahisa et al. (which was cited in the Supplemental IDS submitted December 14, 2005 and is equivalent to United States Patent No. 5,876,893); Japanese Patent Publication No. JP 08-069131 to Kenji et al. (which was cited in the IDS submitted August 24, 2004 and is equivalent to United States Patent No. 5,795,693); and Japanese Patent Publication No. JP 08-194338 to Masahiro et al. (which was cited in the IDS submitted August 24, 2004). In view of the above amendments and the following remarks, the Applicants respectfully request reconsideration of these rejections.

As defined by independent claim 16, the present invention is directed to a coated carrier comprising a carrier core material and a resin coating layer with which the carrier core material is coated. The carrier core material contains at least one metal oxide ($M^L O$) having a melting point of not higher than 1000°C and at least one metal oxide ($M^H O$) having a melting point of not lower than 1800°C. The metal oxide ($M^H O$) is selected from the group consisting of ZrO_2 , TiO_2 and Ta_2O_5 , and the metal (M^H) for constituting the metal oxide ($M^H O$) has an electrical resistivity of not less than $10^{-5} \Omega \cdot \text{cm}$.

As defined by independent claim 17, the present invention is directed to a coated carrier comprising a carrier core material and a resin coating layer with which the carrier core material is coated. The carrier core material comprises a ferrite component having composition represented by the following formula: $(MO)_y(Fe_2O_3)_z$. In the formula, y and z are each expressed in % by mol and are numbers satisfying the conditions of $40 \leq z < 100$ and $y+z=100$. M is a metal selected from Fe, Cu, Zn, Mn, Mg, Ni, Sr, Ca and Li. MO is one or more oxides selected from oxides of these metals, and contains, in the ferrite component, at least one metal oxide ($M^L O$) having a melting point of not higher than 1000°C and at least one metal oxide ($M^H O$) having a melting point of not lower than 1800°C. The metal oxide ($M^H O$) is selected from the group consisting of ZrO_2 , TiO_2 and Ta_2O_5 . The metal oxide ($M^L O$) is selected from metal oxides other than the metal oxide (MO).

In each of the above rejections, the Examiner contends that each of the above references discloses a resin coated carrier core. The Examiner further contends that

the language in independent claims 16 and 17 requiring the metal oxides of the carrier core to have melting points within a given range and an electrical resistivity within a certain range is a "property or a measurement of a property of a material and is considered inherent" in each of the above references.

To establish that a claim element is inherent, the extrinsic evidence used by the Examiner "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill ... The mere fact that a certain thing may result from a given set of circumstances is not sufficient" (see MPEP §2112). None of the above-mentioned references provide any indication of the melting points or the electrical resistivity of the metal oxides of the carrier core. Therefore, we do not believe that these references make clear that these features are necessarily present in the carrier cores disclosed by these references. Additionally, none of the above-mentioned references teaches or suggests a carrier core comprised of a ferrite component that contains at least one metal oxide having a low melting point and one metal oxide having a high melting point as required by independent claims 16 and 17.

However, even if the Examiner continues to contend that the metal oxides of the carrier core having melting points within a given range and an electrical resistivity within a certain range is a "property or a measurement of a property of a material and is considered inherent", the specification of the present invention provides evidence that such ranges are not inherent. Specifically, by containing the low-melting point oxide ($M^L O$) and a high-melting point oxide ($M^H O$) in the carrier core material, the coated carrier is provided with the ability to have excellent electrical properties thereby preventing leakage of electric charge over a wide range of electric fields from low electric fields to high electric fields (see Applicants' specification: page 19, line 14 to page 22, line 12).

For at least the foregoing reasons, the Applicants believe that the subject matter of independent claims 16 and 17 is not anticipated by the above-listed references. Reconsideration of the rejections of claims 16 and 17 is respectfully requested.

Claims 16-31 and 39-50 depend from and add further limitations to independent claims 16 and 17 or a subsequent dependent claim and are believed to be patentable for at least the reasons discussed hereinabove in connection with independent claims 16 and 17. Reconsideration of the rejections of claims 16-31 and 38-50 is respectfully requested.

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Based on the foregoing amendments and remarks, reconsideration of the rejections and allowance of pending claims 16-31 and 38-50 are respectfully requested.

Respectfully submitted,

THE WEBB LAW FIRM

By Kent E. Baldauf

Kent E. Baldauf
Registration No. 25,826
Attorney for Applicants
700 Koppers Building
436 Seventh Avenue
Pittsburgh, Pennsylvania 15219
Telephone: 412-471-8815
Facsimile: 412-471-4094